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CLAIMS

1. An antibody or functional fragment thereof which binds with (e.g. to) and neutralises human NOGO.

10 2. An antibody according to claim 1 which binds to a region of human NOGO-A protein between amino acids 586 to 785.

3. An antibody according to claim 2 which binds to a region of human NOGO-A between amino acids 586 to 685.

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4. An antibody according to claim 2 which binds to a region of human NOGO-A between amino acids 686 to 785.

5. An antibody according to claim 1 which comprises each of the following
20 CDRs:
Light chain CDRs: SEQ.I.D.NO:1, 2 and 3

Heavy chain CDRs:SEQ.I.D.NO: 4,5 and 6.

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6. An antibody according to claim 1 which comprises each of the following
CDRs:
Light chain CDRs: SEQ.I.D.NO:7, 8 and 9

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Heavy chain CDRs: SEQ.I.D.NO:10,11 AND 12.

35 7. An antibody according to claim 1 which comprises each of the following
CDRs:
Light chain CDRs:SEQ.I.D.NO:13,14 AND 15;

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Heavy chain CDRs: SEQ.I.D.NO:16,17 AND 18.

- 10 8. An antibody according to claim 5 which comprises a heavy chain variable domain which comprises each of the CDRs selected from CDRH1, CDRH2 and CDRH3 and a light chain variable domain which comprises one or more CDRs selected from CDRL1, CDRL2 and CDRL3.
- 15 9. An antibody according to claim 6 which comprises a heavy chain variable domain which comprises each of the CDRs selected from CDRH1, CDRH2 and CDRH3 and a light chain variable domain which comprises one or more CDRs selected from CDRL1, CDRL2 and CDRL3.
- 20 10. An antibody according to claim 7 which comprises a heavy chain variable domain which comprises each of the CDRs selected from CDRH1, CDRH2 and CDRH3 and a light chain variable domain which comprises one or more CDRs selected from CDRL1, CDRL2 and CDRL3.
- 25 11. An antibody of any one of claims 1 to 10 which is a monoclonal antibody.
12. An antibody of any one of claims 1 to 13 which is a humanised or chimeric antibody.
- 30 13. An antibody according to claim 8 wherein the heavy chain variable region comprises the amino acid sequence set forth in SEQ.I.D.NO:37
- 35 14. An antibody according to claim 9 wherein the heavy chain variable region comprises the amino acid sequence set forth in SEQ.I.D.NO:38.

- 5 15. An antibody according to claim 10 wherein the heavy chain variable region comprises the amino acid sequence set forth in SEQ ID NO:39.
16. An antibody according to claim 8 or 13 wherein the light chain variable region comprises the amino acid sequence set forth in SEQ ID NO:40.
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17. An antibody according to claim 9 or 14 wherein the light chain variable region comprises the amino acid sequence set forth in SEQ ID NO:41.
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18. An antibody according to claim 10 or 15 wherein the light chain variable region comprises the amino acid sequence set forth in SEQ ID NO:42.
- 20 19. A pharmaceutical composition comprising an anti-NOGO antibody or functional fragment thereof according to any preceding claim together with a pharmaceutically acceptable diluent or carrier.
20. A method of treatment or prophylaxis of stroke and other neurological diseases/disorders in a human which comprises administering to said human in need thereof an effective amount of an anti-NOGO antibody, according to any one of claims 1-18 including altered antibodies or a functional fragment thereof.
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21. The use of an anti-NOGO antibody according to any one of claims 1-18, including altered antibodies or a functional fragment thereof in the preparation of a medicament for treatment or prophylaxis of stroke and other neurological diseases/disorders.
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22. A method of inhibiting neurodegeneration and/or promoting functional recovery in a human patient suffering, or at risk of developing, a stroke or other neurological disease/disorder which comprises administering to said human in
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5 need thereof an effective amount of an anti-NOGO antibody according to any one of claims 1-18, including altered antibodies or a functional fragment thereof.

23. The use of an anti-NOGO antibody according to any one of claims 1-18, including altered antibodies or a functional fragment thereof in the preparation of
10 a medicament for inhibiting neurodegeneration and/or promoting functional recovery in a human patient afflicted with, or at risk of developing, a stroke and other neurological disease/disorder.

24. A method of treating or prophylaxis of stroke or other neurological
15 disease/disorder in a human comprising the step of parenteral administration of a therapeutically effective amount of an anti-NOGO antibody according to any one of claims 1 to 18 to said human.

25. The method of claim 24 wherein the anti-NOGO antibody is administered
20 intravenously.

26. The method of any one of claims 20 to 24 wherein the other neurological disease/disorder is selected from the group consisting of;
traumatic brain injury, spinal cord injury, Alzheimer's disease, fronto-
25 temporal dementias (tauopathies), peripheral neuropathy, Parkinson's disease, Huntington's disease and multiple sclerosis.

27. A method of promoting axonal sprouting comprising the step of contacting a human axon with an anti-NOGO antibody of claims 1 to 18.
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28. The method of claim 27 wherein the method is in vitro.

29. A method of producing an anti-NOGO antibody of any one of claims 1 to 18 which specifically binds to and neutralises the activity of human NOGO-A which
35 method comprises the steps of;

- (a) providing a first vector encoding a heavy chain of the antibody;
- (b) providing a second vector encoding the light chain of the antibody;

- 5 (c) co-transfecting a mammalian host cell with said first and second vectors;
- (d) culturing the host cell of step (c) in culture media (preferably serum free) under conditions permissive to the secretion of the antibody from said host cell into said culture media;
- 10 (e) recovering the secreted antibody of step (d).

30. A method of producing an anti-NOGO antibody that competitively inhibits the binding of the antibody of any one of claims 1 to 18 which method comprises the steps of;

- 15 (a) providing a first vector encoding a heavy chain of the antibody;
- (b) providing a second vector encoding the light chain of the antibody;
- (c) co-transfecting a mammalian host cell with said first and second vectors;
- (d) culturing the host cell of step (c) in culture media (preferably serum
- 20 free) under conditions permissive to the secretion of the antibody from said host cell into said culture media;
- (e) recovering the secreted antibody of step (d).

31. A method of producing an intravenously administrable pharmaceutical
- 25 composition comprising an anti-NOGO antibody which binds to and neutralises the activity of NOGO-A which method comprises the steps of;
- (a) providing a first vector encoding a heavy chain of the antibody;
- (b) providing a second vector encoding the light chain of the antibody;
- (c) introducing (e.g.co-transfecting) said first and second vectors into a
- 30 mammalian host cell;
- (d) culturing the host cell of step (c) in culture media (preferably serum free) wherein said host cell secretes into said culture media an antibody comprising a light and heavy chain;
- (e) recovering (and optionally purifying) the secreted antibody of step (d);
- 35 (f) incorporating the antibody of step (e) into a intravenously administrable pharmaceutical composition.

- 5 32. A method of producing an anti-NOGO antibody which binds to human
NOGO-A between amino acids 586-785, particularly 586-685 or 686 to 785 and
neutralises the activity of said NOGO-A which method comprises the steps of;
- 10 (a) providing a first vector encoding a heavy chain of the antibody;
(b) providing a second vector encoding the light chain of the antibody;
(c) introducing (e.g.co-transfecting) said first and second vectors into a
mammalian host cell;
- (d) culturing the host cell of step (c) in culture media (preferably serum
free) wherein said host cell secretes into said culture media an
antibody comprising a light and heavy chain;
- 15 (e) recovering (and optionally purifying) the secreted antibody of step (d);

33. A method according to claim 29 to 32 wherein the host cell is selected from
the group consisting of; NS0 Sp2/o, CHO, COS, a fibroblast cell such as 3T3,
particularly CHO.

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